

Infections!

Pediatrics

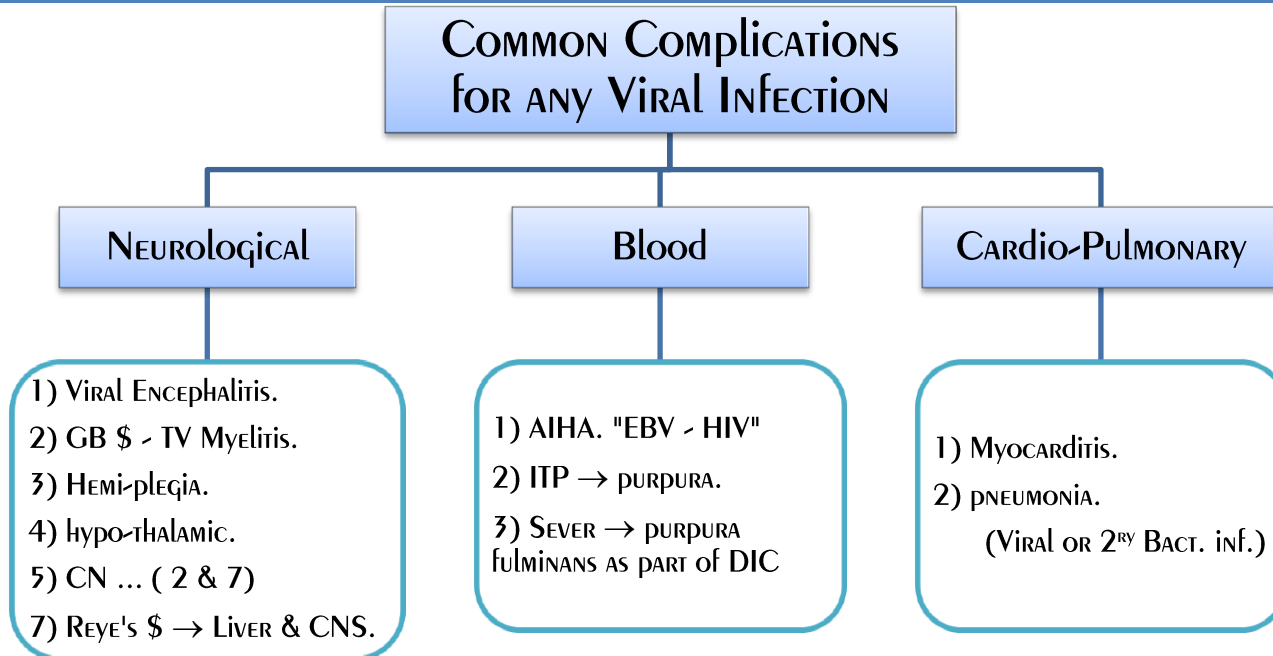
*if you found it useful
kindly share!*

Infections ... fever with rash (1 of 3)

	Scarlet Fever	Measles	Rubella	R. infantum	Chicken pox	Parvo B ₁₉	E B V
• IP	2 – 7 days	10 days	2 – 3 wks.	10 days	14 – 21 days	1 week.	5 – 15 days
• POC		(7) after exposure (5) after R.	(7) Rash (7)		1 day till Crusting of R.		several ms.
• AGE	All are common in school age (5 - 10ys) except (R. Infantum common in Infants)						
prodroma							
• severity	Severe. (high fever, marked toxemia)	Severe. (high fever, marked toxemia)	Mild.	high fever, mild toxemia	Mild. (may pass un-noticed)	Mild	high fever or low fever
• Association	<u>Sever sore throat</u> <ul style="list-style-type: none">Congested Tonsils.Covered by pus.	<u>Mucositis:</u> <ul style="list-style-type: none">Eye → conj. + photophobia.Mouth → Koplik's spots.Resp. tract → croup or dry cough.	Tender LN+ + (retro-auricul & sub-occipital)	Mild pharyngeal Congestion.	Un-noticed	Un-noticed	<u>Fever + Triad</u> 1)Ex. Pharyngitis. 2)Spleno-megaly. 3) LN+ +
• D. b4 rash	1 Day	4 Days	1 Day	4 days. (crisis)	1 Day	Long (20 Ds)	Lysis in 7D.
Rash							
• TYPE	Maculo-papular (Diffuse Erythema → Blanches on pr. ... fine papular → goose flesh texture)	Macula-papular. (±hgic →black measles)	Like Measles.	Macula-papular.	Papulo-vesicular. (the only one) poly-morphic	Maculo-papular	Maculo papular (related to ampicillin)
• START	Axilla, groin, neck.	Along the hair line & behind the ears	Like Measles	Trunk	Trunk (Centripetal)	Slapped cheek appearance.	Trunk
• SPREAD	Generalized in 24 hrs.	Descending. (face in 1 st day ... LL ub 3 days)	Like measles but reaches LL in 1 d.	Neck & Arms + mild aff. of face & legs.	±MM (eye – Mouth)	Trunk, UL No hands & soles.	
• Ass.	1) Sore throat. 2) Circum-oral pallor & flushed cheeks. 3) White strawberry tongue → red.	➤ Mild itching - LN+ + ➤ ↑↑ Fever for 2-3 days with app. of rash.	LN+ +	Once the rash app., fever disapp. (by crisis)	Sever itching ±GLN	±Arthropathy of small joints.	
• DURATION	7 – 10 days	7-10 days	3 days	1 – 3 days.	10 – 14 dasys		
• Disapp.	Desquamation in desc. Manner + hyper-pig. in deep creases	Brany desquamation with same sequence of app.	No desquamation.	(No desquamation or pigmentation)	healing e out scar except if is 2ry BI.		1

Infections ... fever with rash (2 of 3)

Scarlet fever	Measles	Rubella	Chicken pox	E B V
---------------	---------	---------	-------------	-------



SPECIFIC COMPLICATIONS → SCHEME (AS ABOVE) +

No scheme:

- 1) **Local** → Quinzy / Sinusitis / OM / Mastoiditis.
- 2) **Systemic** → Meningitis / Osteomyelitis / Septicemia.
- 3) **Immunological** → Rh. Fever / APSGN

- 1) **GIT** → Stomatitis / GE / KWO.
→ Cancrum oris.
- 2) **Resp.**
 - Laryngitis – Tracheitis
 - ⊕ of dormant of TB.
 - OM.
- 3) **Eye** → Keratitis / CU.
- 4) **SSPE. (NEXT PAGE)**

- 1) **Conq. Rubella \$.**
(see Neonatology)
- 2) **Arthritis:**
 - Self-limited.
 - Small joints.
 - Girls.

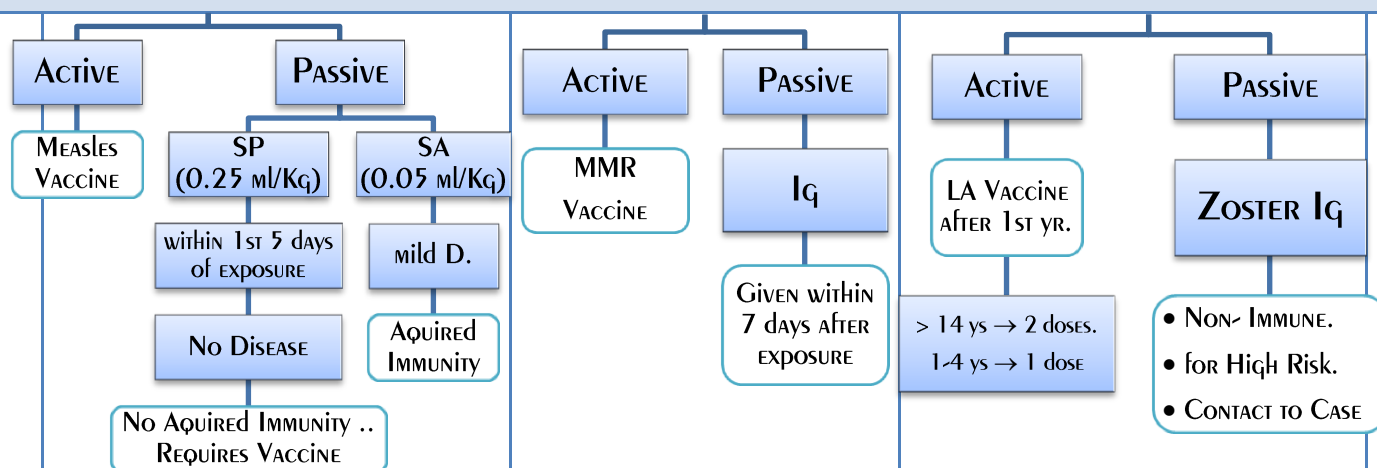
- 1) **Cerebellitis.**
- 2) **Skin** → 2^{ry} bact. Inf.
→ scar.
- 3) **Arthritis.**
- 4) **Eye** → Keratitis / Conj.
- 5) **CONG. VARICELLA** →
(LBW / IUGR / μ cephal / MR – CP Chore-Retinitis)

- 1) **Rupture spleen.**
(2nd wk.)
- 2) **Burkitt's lymphoma &**
(Naso-ph. Carcinoma)
- 3) **Fulminate in IC.**

Infections ... fever with rash (3 of 3)

Scarlet fever	Measles	Rubella	Chicken pox	E B V
1) CBC → ↑ PNL. 2) ↑ ESR / CRP / ASOT. 3) Schultz-Charlton TEST. 4) THROAT SWAB.	1) Clinically Diagnosed. 2) Serology.	IN CASE CONTACT & PREG. 1) Isolation from Nasophx. 2) Serology for Ig M.		1) CBC → Atypical lymph. 2) Paul bunnell – Monosopt. 3) Serology.

PREVENTION



TREATMENT → (REST & NUTRITION + ANTI-PYRETIC (Avoid Aspirin in Viral inf.) + ANTI-PRURITIC) + ...

As strept. infection "SEE 1 st prev. of RF" ↓ 4 types of penicillin. OR ERYTHROMYCIN in Allergy.	1) <u>Isolation 5 days AFTER (R)</u> 2) <u>Vit. A.</u> 3) <u>Symptomatic:</u> <ul style="list-style-type: none"> • Sedatives. • CARE of eye. 	Nothing Specific + Isolation for 7 days.	1) <u>ABS → Avoid 2nd inf.</u> 2) <u>Anti-Viral if:</u> <ul style="list-style-type: none"> • IC patient. • Viral enceph. • < 2 ys. • Ocular affection. 	1) <u>Steroids if:</u> <ul style="list-style-type: none"> • PHARYNGEAL Edema. • <u>AUTOIMMUNE MANIFEST.</u> <ul style="list-style-type: none"> ✓ ITP. ✓ AIHA. ✓ GB \$ - TV Myelitis.
--	--	---	---	--

MEASLES → SSPE

- 1) **Def.** → Brain cell degeneration.
- 2) **Etiology** → slow virus infection (4-8 yrs after infection) & reactivation.
- 3) **CL/P:**
 - Dementia – personality changes.
 - Convulsions
 - Δ & Extra Δ Manifestations..

DD OF RASHES

ANY TYPE OF RASH CAN OCCUR IN:

- SCABIES.
- 2^{RY} \$. (esp CONGENITAL)
- DRUG ERUPTION.

MACULO-PAPULAR

INFECTIONS

BACTERIAL

- SCARLET & Typhoid fever.
- MENINGOCOCCEMIA
- CONG. \$.

VIRAL

- AS Table EXCEPT Chicken pox.
- ENTEROVIRUSUS.
- IMN - CMV.

PARASITIC

Scabies
Toxoplasmosis

OTHERS

- 1) **COLLAGEN D.** → SLE - RA - Rh. fever - Kawasaki D.
- 2) **ALLERGIC** → EM.
- 3) **PITYRIASIS ROSEA.**

PAPULO-VESICULAR

- 1) **BACTERIAL** → Impetigo.
- 2) **VIRAL** → Chicken pox - HZV - HSV - Coxsackie
- 3) **FUNGAL** → Tinea Corporis.
- 4) **PARASITIS** → Scabies.
- 5) **ALLERGIC** → Infantile Eczema, papular urticaria, EM & FDE.

IMMUNIZATION (VACCINES)

	POLIO VACCINE SABIN /SALK		DPT VACCINE	MEASLES VACCINE	BCG VACCINE	HBV VACCINE
• TYPE	LA	Killed	DT = Toxoid / P = Killed	LA	LA	RECOMBINANT DNA
• ROUTE	Oral	IM	IM / Lt. Thigh	SC / Rt. Shoulder	ID / Lt. Shoulder	IM / Rt. Thigh
• DOSE	All 0.5 cc EXCEPT BCG (0.05 – 0.1 cc)					
• TIME	2, 4, 6	<u>3, 4, 11</u>	<u>2, 4, 6</u> MS.	9 MS.	BEFORE 3MS.	2, 4, 6 MS.
• BOOSTER	9 MS.		1.5, 3, 6 ys.			
• ADV.	LOCAL & SYSTEMIC IMMUNITY ↓ provides HERD IMMUNITY. (EASY & CHEAP)	SYSTEMIC IMMUNITY Only.		Adv. OF MEASLES VACC. OVER NATURAL D. 1) GIVEN AT LEISURE TIME. 2) MILD FEVER. 3) NO SPREAD. 4) LESS COMPLICATION.	ORAL BCG VACCINE 1) 1 st wk of life. 2) NO NEED FOR TUBERCULIN TEST b4 VACC. 3) NO COMPLICATIONS	
• COMPL.	NO. LOOSE STOOLS, GE.	LESS FEVER. ± PARALYSIS AFTER INJ. IN ALREADY EXPOSED PTS.	1) FEVER. 2) POST VACC. (ENCEPHALITIS / PN)	1) FEVER – RASH. 2) POST-VACC. ENCEPHALITIS. 3) ACTIVATION OF DORMANT TB. 4) SSPE	1) LOCAL → TB ULCER. 2) REGIONAL → TB AXILLARY ADENITIS. Cold Abscess. 3) SYSTEMIC → IN IC.	
# IN CHILD WITH (sever illness → High Fever → Needs hospit) +						
PRECAUTIONS: 1) NO BF 2 HRS. BEFORE & AFTER VACC. 2) NOT b4 6 wks. FROM PREV. VACC. 3) <u>INFANT should be:</u> <ul style="list-style-type: none"> • NO FEVER. • NO N V D. • NO ENTERO-VIRAL INFECTIONS. 		"DON'T GIVE DPT AFTER 5 ys, BUT GIVE DT OR DTPa."		1) FEVER. 2) ↓ <u>IMMUNITY:</u> <ul style="list-style-type: none"> • STEROID - CANCER. • HIV – LEUKEMIA. • PREGNANCY. • ACTIVE TB. 	# in IMMUNO def. diseases	

IMMUNIZATION SCHEDULE IN EGYPT	
AGE	VACCINE
• 3 MS.	BCG
• 2, 4, 6 MS.	OPV – DPT – HBV
• 9 MS.	OPV – Vit. A
• 12 MS.	MMR
• 18 – 24 MS.	OPV – DPT. (BOOSTER)

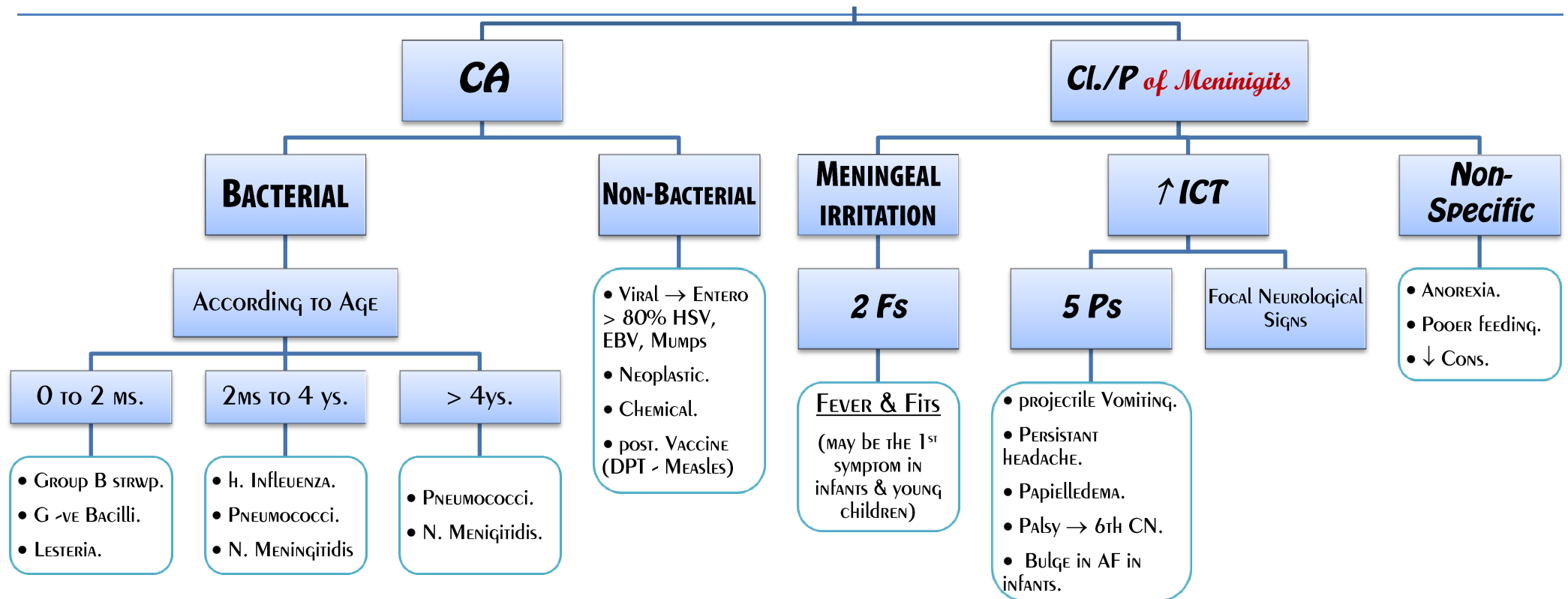
TO Child IMMUNIZATION:

- 1) No # TO VACCINATION.
- 2) LA VACCINES (OPV / BCG / MEASLES) → # IN PREGNANCY & IMMUNO-COMPROMISED.
- 3) DPT is # → if Epilepsy / < 5ys. / REACTION TO PREV. DOSE.

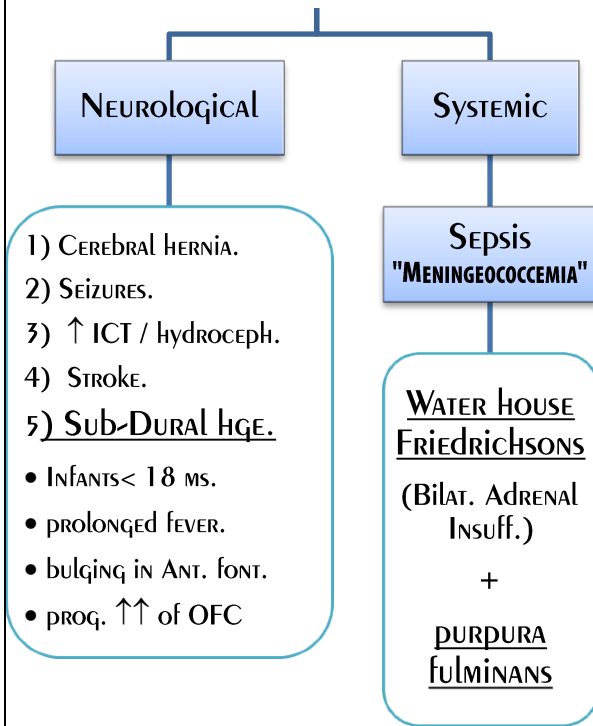
NEW VACCINES (As DR. HAMdy MENTIONED IN his CLASS)

	H. INFLUENZA	MENINGOCOCCAL	PNEUMOCOCCAL	ROTA	VARICELLA
Type	CONJUGATED POLYSACCHARIDE VACCINE			LA	LA
ROUTE	IM			Oral	SC
AGE	➤ 2,4,6MS	➤ if > 5 ys AGE	➤ if > 2 ys AGE		AFTER 1 st yr.
DOSE	➤ FOR ALL CHILDREN <5 ys.	➤ REPEATED AFTER 3 ys ➤ IN EPIDEMICS	➤ 2, 4, 6 & 15 MS AGE. ➤ SPECIAL INDICATIONS???? (SPLENECTOMY....)	2-3 doses IN THE 1 st 6MS.	2nd DOSE AT 4-6 ys

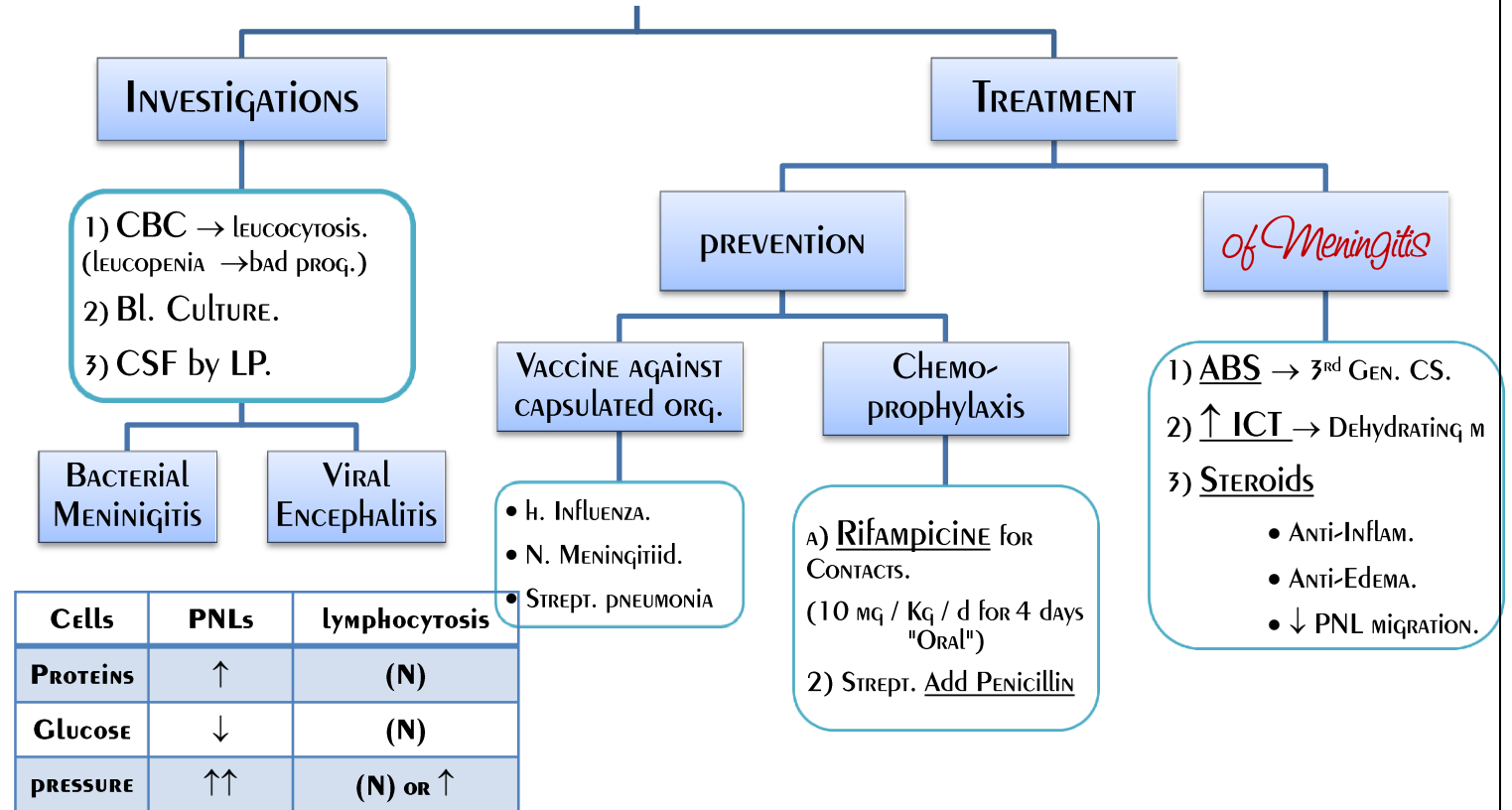
Meningitis



Complications of MENINGITIS



MANAGEMENT of MENINGITIS

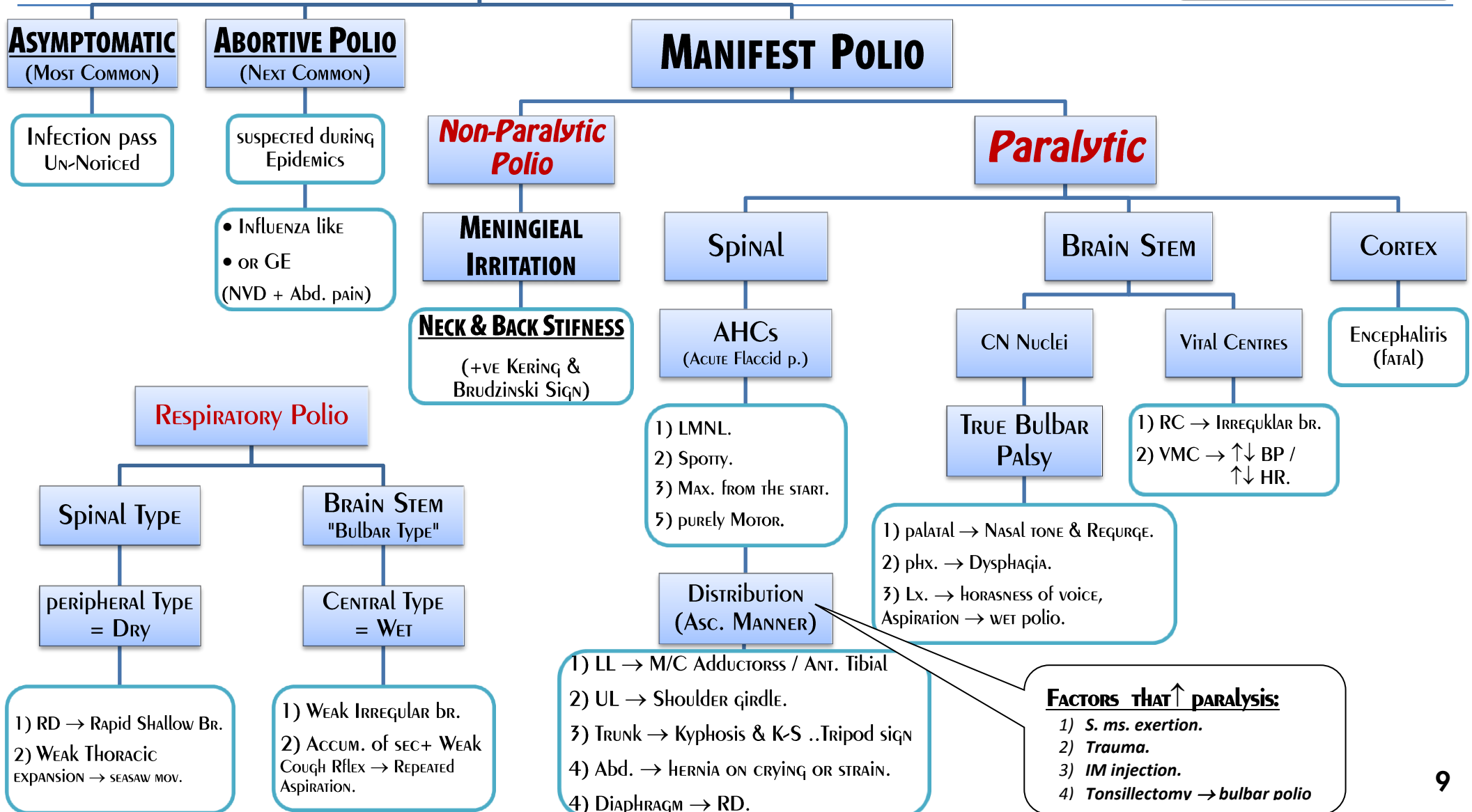


DD OF POLIO

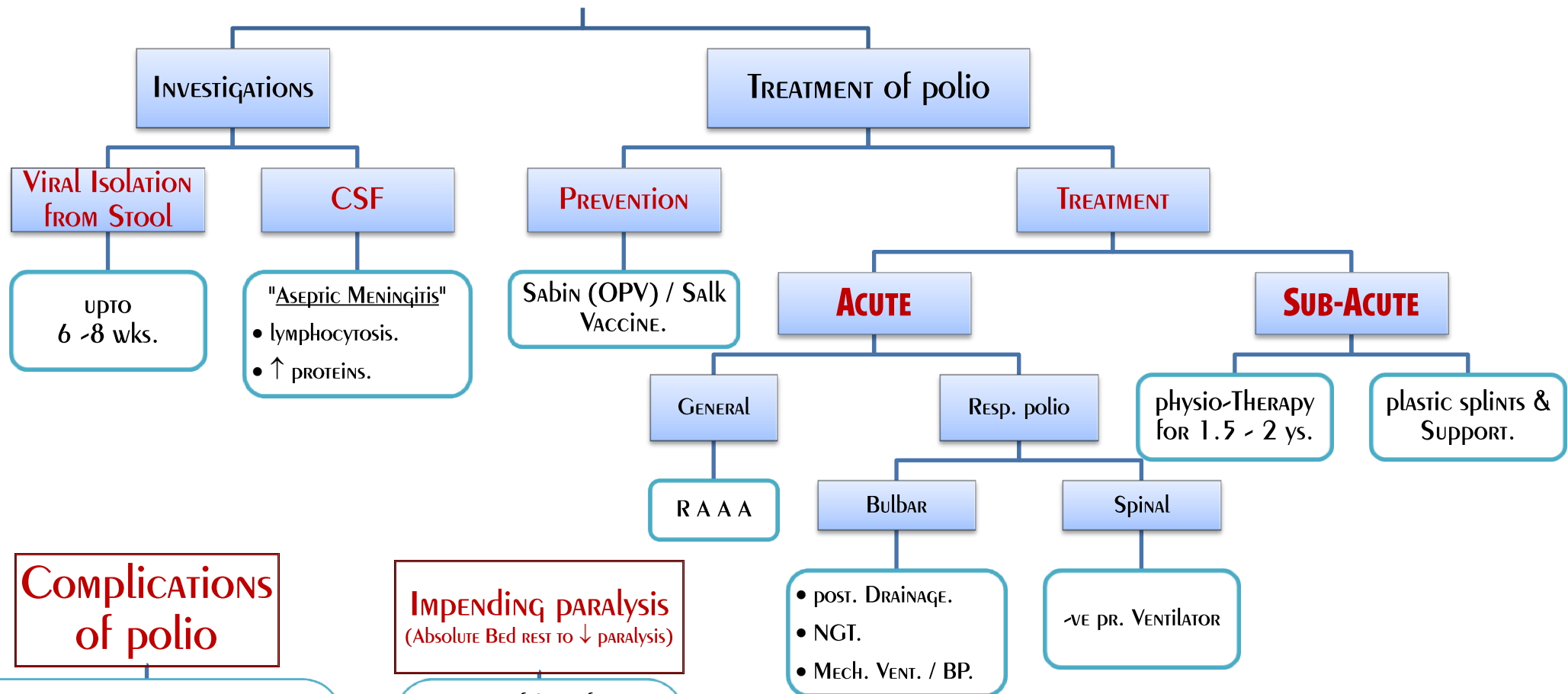
- 1) SC LESION → TV Myelitis & TRAUMA / VASCULAR.
- 2) PN → GB & Post Diphtheric.
- 3) NMJ → Botulism / OP / Tick.

Poliomyelitis

- **CA** → polio virus "3 STRAINS"
- **MOT** → Feco-Oral / Droplet.
- **IP** → 7-10 days
- **AGE** → (hms to 3 vs.)



Management of Polio



Complications of polio

- 1) Resp. → As above.
- 2) GIT → ACUTE GASTRIC Dilat. + MELENA.
- 3) CVS → HTN & HF.
- 4) URINARY → ACUTE RET. & UTI.
- 5) Psychological TRAUMA.
- 6) BONE & JOINT deformities.

Impending paralysis (Absolute Bed REST to ↓ paralysis)

- 1) Disapp. of Superf. Reflexes. Gluteal → Abdominal → Cremasteric.
(Occurs 24 hrs. b4 paralysis)
- 2) ↑ OR ↓ in Deep Reflexes.
- 3) SEVER SPASM & PAIN in ms. w ARE GOING to be paralyzed.

extra-points from the department's MCQ book

- 1) Whooping cough → may occur in the neonatal period.
- 2) IP of Diphtheria → 2-7 days.
- 3) H. influenza → M/C cause of OM in children.
- 4) Uncomplicated Measles → LEUCOPENIA.
- 5) Best feature to diff. R.infantum & Rubella → LN++
- 6) In mumps → pancreatitis is more common in children > adults.
- 7) Tuberculin test is +ve when → area of induration > 1 cm in diameter.
- 8) Cholera infantum → causes sever dehydration.
- 9) M/C cause of infantile GE → ROTA.
- 10) ARTHRITIS IN??? → Rubella-Chicken pox-parvo-mumps

	<i>Typhoid Fever</i>	<i>Kwasaki</i>
SEVERITY	Mild - stepwise	Fever for 5 days
ASSOCIATIONS	<ul style="list-style-type: none"> • Abd pain, Diarrhea then Constip. • NO NV. • cough, wheeze, epistaxis, lethargy 	
Rash	<p><u>Maculo-papular</u> on lower chest & Abdomen.</p>	<ul style="list-style-type: none"> • <u>Polymorphic</u> • <u>Associations:</u> (وشه أحمر زي الدم) <ul style="list-style-type: none"> ✓ Conjunctivitis -lips -tongue - buccal MM ✓ edema of hands & feet (non-pitting), LN++ ✓ Disapp. → desq. of fingertips (PERI_ANGULAR) <p>➤ In scarlet fever → hyperpig of palmar creases.</p>